

STAT

THE OFFICIAL AND NON-OFFICIAL RECORDS OF THE DEUTSCHEN BUNDESSTELLE, LEID SURVIVE OFFICE

(Source: Berichte zur Deutschen Bundesstelle,

No. 5, February 1951)

Leiden

2 July
1951

The Individual Topographic Maps

German

The 1:5,000 Basic Map and the Cadastral Survey Map

The most recent of the official maps is the 1:5,000 German Basic Map. In contrast to all other official maps, this one is not bounded by the lines of a geographic ~~contour~~ grid, but by lines of the Gauss-Krüger coordinate grid (Mertens style). The individual sheets are quadric grid maps and include an area of 2 x 2 kilometers.

The efforts to produce a uniform 1:5,000 map of North Germany go back a good many years. As early as 1881 it was recommended that a large-scale ~~map~~ ^{map} be developed after those of the South German Länder be prepared for Prussia also. Later the recommendation was repeated several times by various offices, but it was not until 1922-1923 that the Surveying Council drafted the first sample sheet and the legend for the 1:5,000 German Basic Map. But even then the matter did not make any considerable progress. It was not until 1924 and later that the Survey Commission in Düsseldorf developed 1:5,000 maps (without contour lines) from the cadastral maps. The sheets were drafted in the framework of the German Basic Map, and later (to distinguish this map from the latter) were given the designation Cadastral Survey Map. In 1937, after very thorough revision, the still valid sample sheet and the legend for the German Basic Map and the Cadastral Survey Map appeared. Then in ~~1941~~ 1941, the Reich Ministry of the Interior called special attention to this new map and called for a systematic production. It is becoming increasingly important for planning operations of all sorts.

This map is still in the process of development and is going through various development stages. First, 1:5,000 maps will be produced by the Land-Survey Offices or the Survey Administrations or the district governments, on the basis of the cadastral maps which they have available and any other still usable sketches. These sheets will be given the designation Cadastral Survey Map. They will in general be reproduced only in blue-print form for transmission to other offices. After thorough revision from the topographic standpoint, they will be given the designation German Basic Map

(Basic Draft). As such ~~it~~ will be printed. Not until after ~~the~~ it has been supplemented by a new survey of elevations will it finally attain the form in which it will be ~~reissued~~ issued as the "German Basic Map."

In Nordrhein-Westfalen ~~the new~~ will include about 8,850 sheets. By 1 January 1961 the following had been completed:

a. German Basic Map with Contour Lines	17 sheets
b. German Basic Map (Basic Draft)	898 sheets
c. Industrial Survey Map	898 sheets
Total	1,193 sheets.

The following have appeared in surveys of the status of work on the German Basic Map, as of 1 April 1960:

1. General Survey of Land Nordrhein-Westfalen, 1:500,000
2. Separate Surveys of Administrative Districts Aachen, Detmold, and Duenstern, 1:500,000.

Since the industrial maps in Nordrhein-Westfalen do not have a uniform grid structure, and most of them are very old and incomplete, especially with regard to the depicting of buildings, the production of the new map has been ^{of the area} greatly impeded; on the other hand, the new map is all the more important for this reason.

The 1:25,000 Topographic Map

Currently the 1:25,000 Topographic Maps still form the most important basis for the most varied planning projects, and also the basis for the correction of all subsequent scales. The individual sheets are degree-boundary sheets, that is, they are bounded by ~~the~~ meridians and parallels of latitude. Each map sheet consists of a spheroid trapezoid representing 10' of geographical longitude and 6' of geographical latitude. The geographical values are given on the margin of the sheet, and now refer to the Greenwich meridian. For our latitude, one sheet represents a surface area of about 11.5 x 11.3 kilometers, or 133 square kilometers.

This spheroid trapezoid is transferred to the plane surface according to the Prussian polyhedral projection, using the Bessel terrestrial ellipsoid

as the surface of reference. Each sheet is a ^{separate} projection unit, and the meridians and the parallels of latitude are depicted in their true lengths as straight lines. For each individual sheet, this method of representation may be regarded as giving true length, true angles, and true area. All the sheets together could represent the ~~upper~~ ^{total} surface of a polyhedron.

~~Subsequently~~, in accordance with a decision of the Survey Council in 1921, the Gauss-Krueger grid was drawn in on the individual sheets. Now, when individual sheets of this map are revised, the plane, true-angle, transverse cylindrical projection according to Gauss-Krueger is made the basis of the representation.

Each sheet is designated by a number and the name of the sheet. The numbering was uniform for the entire area of the German Reich. All sheets in the Nordrhein-Westfalen region have a number consisting of four digits. The first two digits indicate the zone, increasing from north to south. The last two digits indicate the vertical sheet, increasing from west to east.

All sheets of this map were originally engraved on lithographic stones and appeared in a one-color edition. Later some of the sheets were engraved on copper and printed in a three-color edition.

Shortly before the beginning of the last war, chalk prints were made from the original stones or copper plates. Today, these chalk prints on aluminum represent the originals, and work is being continued on them. After the collapse, there were a number of sheets for which no such chalk prints were available. New originals, suitable for continuing work, will have to be made for 32 sheets. The Nordrhein-Westfalen Land Survey Office has to process 324 sheets of this map. Two of these exist in a three-color edition, with black basic outline, brown contour lines, and blue water; for the other sheets, there are only one-color prints.

At the instigation of the Land Planning Office, all sheets in the future which have been corrected in detail will show ~~the~~ administrative boundaries in green. So far, there are six sheets in this edition. ~~xxx~~ Some of the individual sheets in this map series are very old and should be thoroughly revised. For example, ~~xxxx~~ 57 of the sheets have not had a thorough revision for more than

40 years. However, this very comprehensive work cannot be done except on a long-term basis.

As soon as the 1:5,000 German Basic Map is completed, a number of sheets will have to be revised gradually for the three-color edition, using the new map as a basis.

The 1:50,000 German Map

The initial impetus for the creation of a modern 1:50,000 map came from the southern Länder, and ~~xxx~~ in 1933 the Survey Council declared that this was the job of the individual Länder. A decree of the Reich Ministry of the Interior of 31 May 1935 designated this map as a national map, and therefore a job for the former Reich Office for Land Survey. The southern Länder, especially Bavaria and Württemberg, have already completed a number of sheets for this map and are now working on it again.

In the former Prussian territory the work on this map proceeded very slowly. At the outbreak of the last war, several sheets were in progress ^{for the area which} ~~xxx~~ is now Land Nordrhein-Westfalen. The work was interrupted at the beginning of the war, so that no sheet of this region was actually completed. The lack of such a map has already led to the result that some offices have tried to help themselves out and have drafted maps of their own regions ^{on this scale} which differ in sheet size and legend.

In agreement with the other Land Survey Offices in the Federal Republic, it has been decided that the map with the official legend and sheet size will first be produced for those areas where there is an urgent necessity for it.

The individual sheets are degree-boundary sheets ~~xxx~~ covering 30' of geographical longitude and 15' of geographical latitude; i.e., the same area as the individual sheets of the 1:100,000 map; they also use the same numbering and names as the latter.

At the former Reich Office for Land Survey the sheets were drawn on a scale of 1:25,000 and were then reduced in size and transferred galvanically ^{of this map} to copper plates. Of the 42 sheets which encompass the area of Nordrhein-Westfalen, only sheet No. 457, Bonn, has so far appeared.

This map is especially needed for the Ruhr region. The Ruhr Settlement

Union is giving widespread support to this work. Two of the sheets for this region are already being worked on. The sheets which have so far been prepared by the Ruhr Settlement ~~Ruhr~~ Union in a different format will later be incorporated into the framework of the official map.

Sheet No. 457, Bonn, ~~is~~ has appeared in a three-color edition (basic ~~lines~~, water, contour lines) and in a four-color edition (with forest in green). The sample sheet of 1937 was the basis for its preparation.

The 1:100,000 Map of the German Reich

In an agreement of 4 March 1878 the German states of Bavaria, Prussia, Saxony, and Württemberg undertook the preparation of a 1:100,000 map according to uniform specifications, distributing the work among them.

During a period of about 30 years, this entire map was prepared, starting from scratch. The last sheet appeared in 1910. This was the only map which was uniform for the entire area of the former Reich. This map of the German Reich was a ~~success~~ favorite with a great variety of map users, and even today it is used most often for a great many different purposes.

Like the 1:50,000 Topographic Map, the 1:100,000 map uses the Prussian polyconic projection with the Bessel terrestrial ellipsoid as reference ~~surface~~. Each sheet is a trapezoid ~~width~~ once passing 15' of latitude and 30' of longitude. All four sides are represented by straight lines. Thus for the north and south borders, the parallels of latitude ~~are~~ are represented by their chords. The curvature of the parallels was taken into account in entering the map content.

The Gauss-Krüger coordinates were later added. The content of this map is extremely comprehensive for the scale, and is very well coordinated. The road network linking the towns is completely represented. The representation of the towns shows clearly the distinction between compact ~~and~~ built-up areas, and those which are more open.

Administrative boundaries are given only down to the level of Kreis.

Originally this map was prepared in only one color and was engraved on copper. Elevations are shown by hatching according to the Lehmann-Lueffling

method, with vertical illumination. This is done in areas where there are steep inclines the map is heavily covered with heavy hatching.

A three-color edition appeared for several of the sheets (Edition B), with black ~~basic~~^{outline}, brown hatching, and blue for water. For economic reasons it was not possible to print on this edition after 1941.

The ~~map~~^{or} ~~map/line~~ (Edition C) of the map is known as the so-called "big map" (four sheets printed together) was in general use and still are today.

A reliable reproduction of this very finely drawn map was possible only as long as the original copper plates were available. The reproduction of this map by the East German Offices is very difficult today because the copper plates are not available, and the ~~best~~^{best} substitutes for the originals must first be made on acetate film.

The ~~reproduction~~^{reproduction} of the map by the East German Survey Office has to ~~be made~~^{be made} in sheets for ~~prints of~~^{prints of} this map. ~~Either single or "big" sheets can be made available in the provisional minimum edition for all of the 42.~~ It has not been possible to undertake any revisions of the individual sheets. Sheet No. 432, Silesia, has been newly produced as a single sheet in a three-color edition with contour lines. The old ~~basic~~^{outline} was retained in toto. After several single sheets are available in different forms, the East German Landwehr will have to decide in what way the map should be brought up to date.

The 1:200,000 Topographic Survey Map

This map dates from 1900 and was drawn ~~in conical projection~~^{by} conical projection according to ~~Winkel~~^{Winkel} de M'Isle, which gives true average distances, using 60° East Longitude and 55° North Latitude as the intersecting parallels. In contrast to the polyhedral projection, when a number of these sheets are joined together, ~~no~~^{no} gaps appear.

This map appeared in two editions:

Edition C, in three colors (basic ~~outline~~^{outline} in black, water in blue, terrain in brown contour lines)

Edition D, a special morphological edition, with water in blue and terrain in brown contour lines.

All the sheets were engraved on copper. Since the copper plates are no longer available, a reprint is not possible at present.

There are 12 sheets for Nordrhein-Westfalen. Prints can still be ~~made~~ ^{obtained} in one-color of individual sheets. In urgent cases, photo copies can be made of individual sheets.

1:500,000 Survey Map

This map appeared after 1907 as a degree-boundary map drafted in the Prussian polyhedral projection.

The individual sheets were printed in a five-color edition. The Nordrhein-Westfalen Land Survey Office has so far reprinted only sheet N 33, Duesselebrunn, in a provisional edition. The automobile and transportation maps which were based on this map have not yet been reprinted, and are not essential because of the printing of good maps by private institutions.

On the other hand, it became necessary to produce a survey map of Nordrhein-Westfalen. The first two-color edition of 1947 ~~xx~~ has been revised.

The present survey map appears in two editions:

1. A three-color edition (basic ~~map~~ ^{map} in black, water in blue, political boundaries in green)
2. A six-color edition (basic ~~map~~ ^{map} in black, water in blue, terrain in grey, forest in green, roads in red, boundaries in orange)

The 1:500,000 Survey Map of Nordrhein-Westfalen

This map is to close the gap between the topographic maps and the geographic maps. The present five-color edition of this map represents only a partial solution. Later on, terrain is to be ^{additionally} represented by color distinctions for elevation, as in the 1:1,000,000 International World Map.

Other Maps

The official maps, because of their uniform legends and the fact that they adjoin one another without gaps, are well suited for the preparation of special maps of all kinds on the same or other scales.

~~From the 1:50,000 German Basic Map, or on a scale of 1:10,000 from the reduced basic map, for a great variety of purposes, particularly as a basis for the plans under the Law for Reconstruction. For basic maps which do not have contour lines, the contour lines can be taken from the enlarged plane table sheets.~~

Composite prints on a scale of 1:15,000 can be produced from the 1:5,000 German Basic Map, or on a scale of 1:10,000 from the reduced basic map, for a great variety of purposes, particularly as a basis for the plans under the Law for Reconstruction. For basic maps which do not have contour lines, the contour lines can be taken from the enlarged plane table sheets.

All sheets of the 1:25,000 Topographic Map are available in quarter sheets (northwest, northeast, southwest, and southeast) enlarged to 1:10,000. Prints of the 12ine sheets can be had in these enlargements, ^{but} blueprints of the West-Galian sheets.

Composite prints 1:25,000 are being prepared on order as environment maps of cities.

For several likewise there are 12ine maps on a scale of 1:50,000 available; for others, on a scale of 1:100,000. Survey maps with administrative boundaries in green are available on a scale of 1:100,000 for the administrative districts of Aachen, Dusseldorf, and Cologne, and on a scale of 1:200,000 for the administrative districts of Arnberg, Detmold, and Lauenstein.